

WIX1002 Fundamentals of Programming

Tutorial 4 Flow of Control (Repetition)

1. Write statements for each of the following
 - a. Find the largest integer n so that n^3 is less than 2000.
 - b. Display the square number of the first twelve integers starting from 1.
 - c. Display a 4-by-5 matrix using random number within 0 to 100.
 - d. Compute the sum of numbers from 1 to a given number.
 - e. Compute the sum of the series: $1/25+2/24+3/23 \dots + 25/1$ in two decimal places.
2. Correct the error for the following statements.
 - a.

```
for (x = 10; x > 0; x++)
    sum += x;
```
 - b.

```
do
    x += 2;
    y += x;
    System.out.println(x + " and " + y);
while (x < 100)
```
 - c.

```
for ( x==1, y==20; x < y, x++, y-=2);
    System.out.println(x & " " & y);
```
 - d.

```
i=1;
while(i<10) {
    if (i==10)
        System.out.println("Program End");
}
```
3. Write the statements that display the first ten values of the Fibonacci sequence. Given the formula $f_1 = 1$, $f_2 = 1$, $f_n = f_{n-1} + f_{n-2}$.
4. Write the statements that display the string in reverse order. (use `String.length()` to get the length of the string)